



# Lextran

## Congestion Mitigation and Air Quality Projects (and LoNo too!)

Presentation at  
Nature's Call to Action  
April 14, 2016



# Lextran at a glance

- Public transportation provider in Fayette County since 1973
- 16,000 trips per day
- 3.5 million customers - FY15
- 70% of trips are for work or school
- Fleet –
  - 57 buses (4 hybrids)
  - 3 trolleys (2 hybrid models)
  - 49 WHEELS paratransit vehicles
- County-wide WHEELS service
- Culture of safety and customer service



# Exciting times for Lextran

- New headquarters, next week!
- Expanding sustainable business practices
- Diversifying fleet



# Grateful for Grants and Awards:

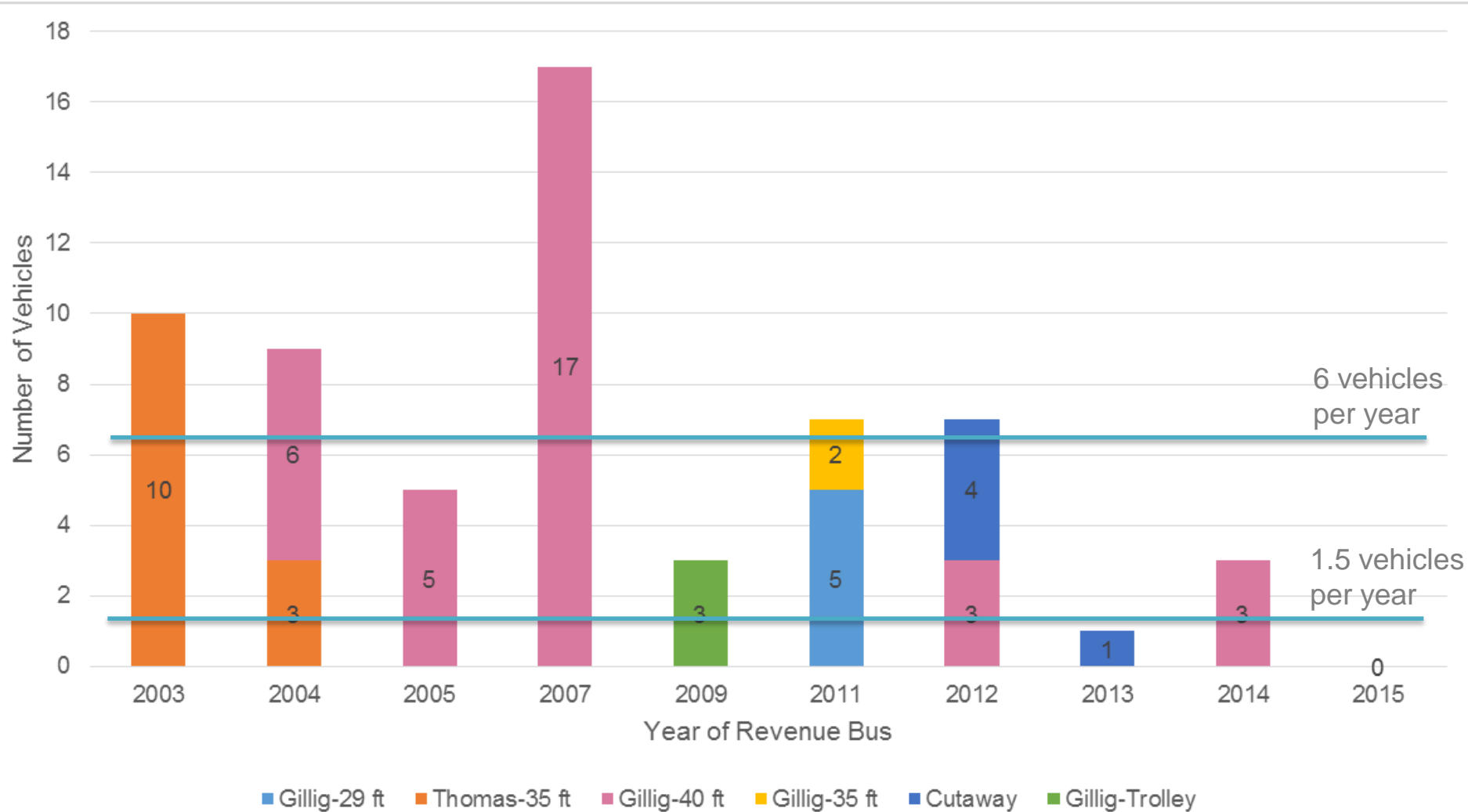
- FY 2015 CMAQ (Congestion Mitigation and Air Quality) for seven compressed natural gas (CNG)
- FY 2015 LoNo (Low or No Emissions) grant Section 5312 for five electric vehicles and equipment
- FY 2016 CMAQ for three CNG vehicles
- FY 2015 Federal Transit Administration (FTA) Section 5339 for one CNG vehicle

# Consideration for alternative fuels?



- Decreasing carbon emissions from the tailpipe = cleaner air
- Stability in energy prices = more balanced budgets
- “Greener” Brand = increased ridership
- Different engine type = lowered maintenance costs
- ‘Station’ Infrastructure = increased initial capital costs

# ...and fleet needs.



Weighted Average Age = 8.4 years / FTA Useful life is 12 years



# Average Price of Diesel

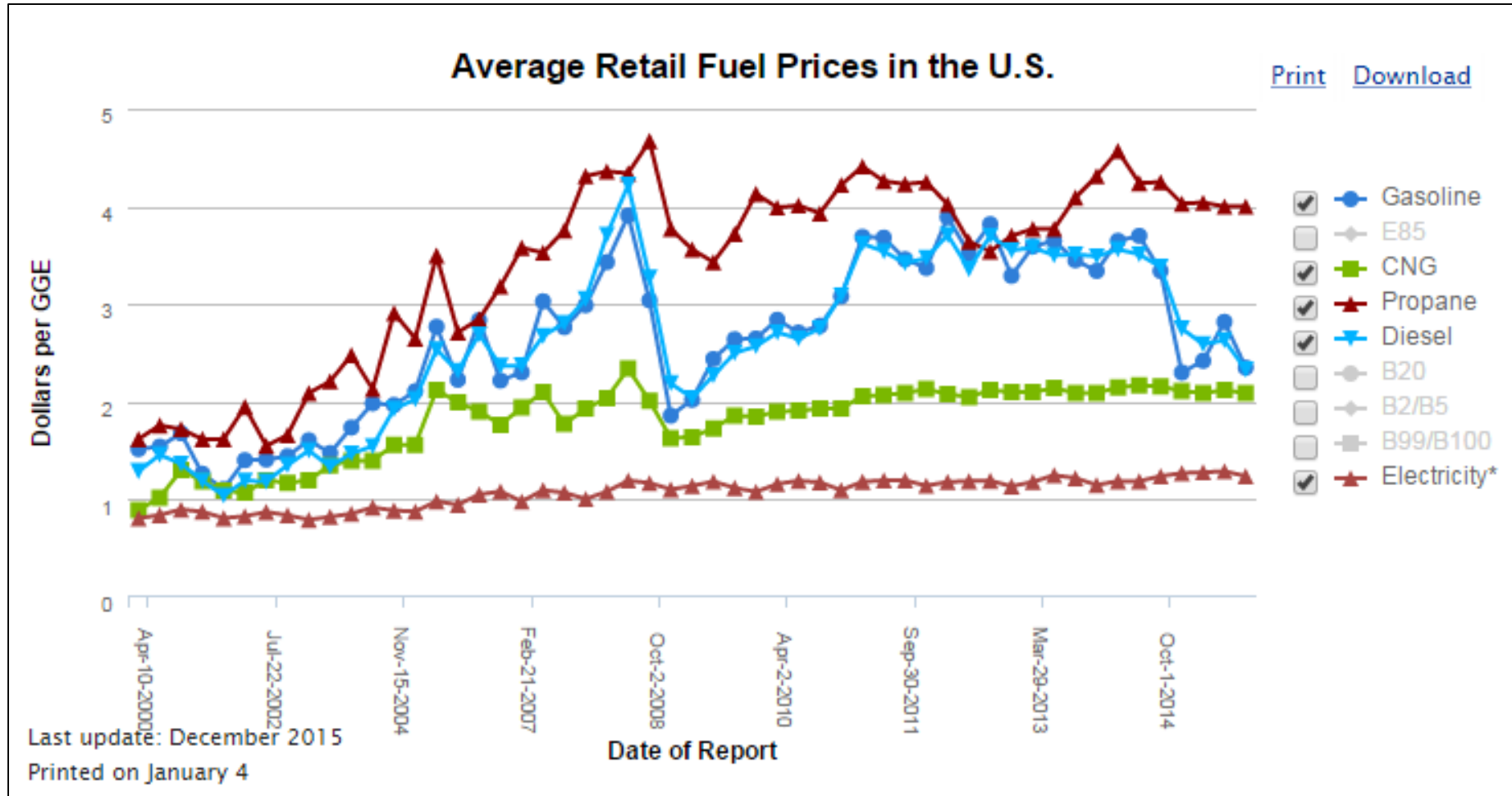
Weekly retail diesel prices (2000-2016)  
dollars per gallon



**July 2012 to January 2016**

<http://www.eia.gov/petroleum/>

# Average Retail Fuel Price 2000 to 2015



**Source:** US Department of Energy

<http://www.afdc.energy.gov/fuels/prices.html>

\*Electric prices are reduced by a factor of 3.4 because electric motors are 3.4 times more efficient than internal combustion engines.

\*\*Propane prices reflect the weighted average of "primary" and "secondary" stations.

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# Emissions Comparison



	Diesel Bus	CNG Bus	Electric Bus
VOC	51.3	61.6	0
CO	229.3	1583.3	0
NO <sub>x</sub>	674.8	50.8	0
PM 2.5	46.7	1.2	0
PM 10	3.6	3.6	0

Lextran →

# CNG similar fueling process as Diesel



# CNG at Lextran



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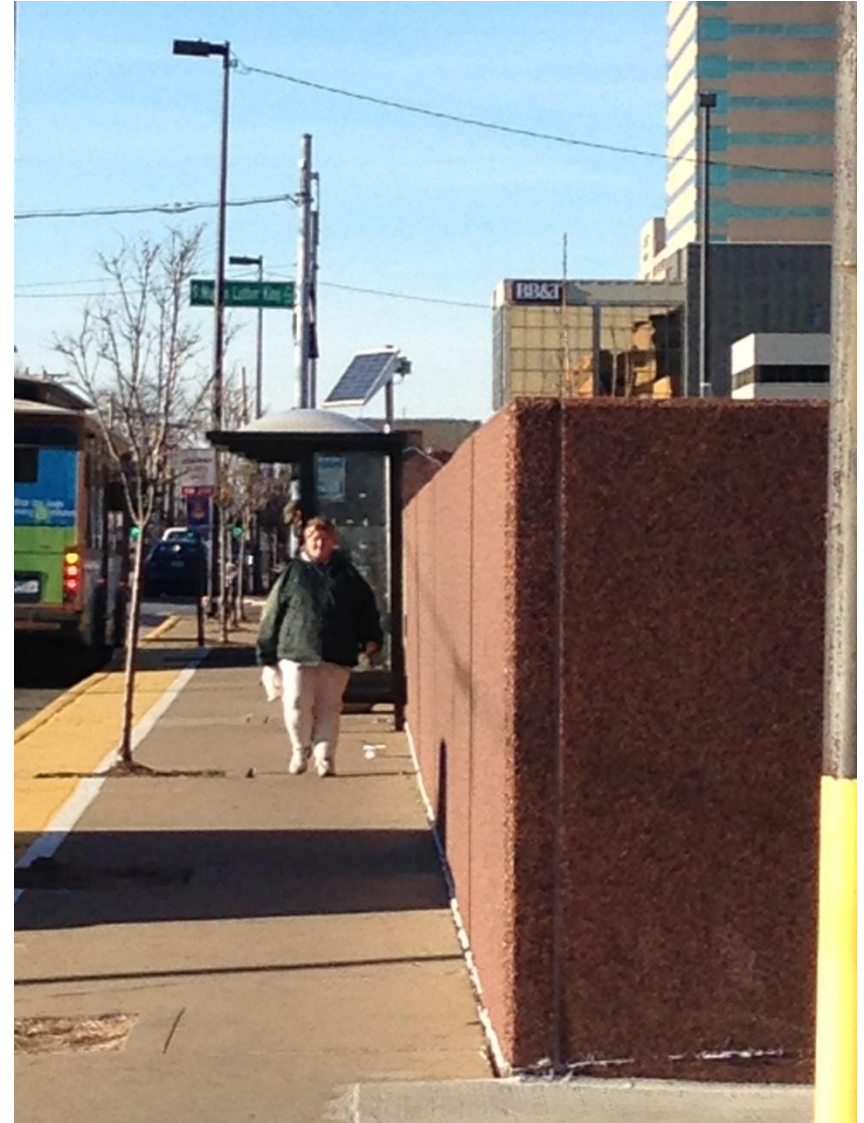
# Electric Charging is on route



From Market Street in Louisville, KY



# Electric Charging Station in Lexington



# Looking towards 2017 - 2022

- Respond to customer needs for faster and better service – “The Starbucks App”
- Improvements to Transit Center, Bus Stops and Shelters, and sidewalks
- Expand service delivery options to better meet changes to built environment, like commercial areas

